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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,460	12/13/2001	Charles E. Taylor	SHPR-01041USJ SRM	3479

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EXAMINER	
TRAN, THAO T	
ART UNIT	PAPER NUMBER
1711	7

DATE MAILED: 09/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/023,460	TAYLOR ET AL.	
	Examiner	Art Unit	
	Thao T. Tran	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 25 March 2002 .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 25-61 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 25-61 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 35, 37, and 54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 35 and 54 recite the limitation "said top" in line 1 of each claim. There is insufficient antecedent basis for this limitation in the claims.

Claim 37 recites the limitation "said exhaust vent" in line 1. There is insufficient antecedent basis for this limitation in the claims.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 25-26, 28, 38, 40, and 42 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2, 7-8, 12-13, and 17-18 of Co-pending Application, Serial No. 09/897,267. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the Co-pending Application contain the subject matter that is narrower in scope than that in the instant claims, rendering them obvious over each other.

In regards to instant claims 25-26, claims 1, 7, 8, 12, 13, 17 in the patent teach an electro-kinetic air transporter-conditioner, comprising a housing defining at least one vent; a self-contained ion generator disposed within the housing; the ion generating unit having a plurality of pin-ring electrode configurations, each including a pin electrode and a ring electrode.

Claim 1 of the patent further teaches a means for attaching the housing to an animal container, making the claims of the patent narrower in scope than that in the instant claim 25.

In regards to instant claim 28, claims 2 and 13 of the patent teach the use of duty cycle control.

In regards to instant claims 38, 40, and 42, claims 7-8 and 17-18 of the patent teach the pin electrodes including a plurality of conductive fibers, and the ring electrode having a central through opening, which reads on the skirt region in the instant claims, and the pin electrode pointing in a downstream direction.

Hence, the claims of the patent encompass the instant claims, rendering them obvious over each other.

5. Claims 25-26, 28, 38, 41-43 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2, 4-5 of Co-pending

Application, Serial No. 10/023,197. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the Co-pending Application contain the subject matter that is broader in scope than that in the instant claims, rendering them obvious over each other.

In regards to instant claim 25, claim 1 of the patent teaches an electro-kinetic air transporter-conditioner, comprising a housing and an ion generator. Claims 2 and 4-5 of the patent teach the ion generator having a plurality of pin-ring electrode configurations, each configuration including a pin electrode that is directed toward a ring electrode.

Therefore, claim 1 of the patent contains the subject matter that is broader in scope than that of the instant claim, rendering them obvious over each other.

In regards to instant claims 26, 28, 38, and 41-43, claims 2-5 of the patent teach all of the limitations recited in the instant claims.

6. Claims 25-26, 28, 33, and 41-43 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4-6, 11-13, 16, 21, and 23 of U.S. Patent No. 5,975,090. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent contain the subject matter that is narrower in scope than that in the instant claims, rendering them obvious over each other.

In regards to instant claim 25, claims 1, 6, 12, 16, and 21 of the patent teach an apparatus, comprising a housing, an ion generator disposed within the housing; the ion generator having a plurality of pin-ring electrode configurations, each configuration including a pin electrode that is directed toward a ring electrode.

In regards to instant claims 25-26, 28, 33, and 41-43, claims 1, 4-6, 11-13, 16, 21, and 23 teach all the limitations as recited in the instant claims.

Therefore, the claims of the patent contain the subject matter that is narrower in scope than that of the instant claim, rendering them obvious over each other.

7. Claims 25-26, 28, 33, and 41-43 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 12 and 17-19 of U.S. Patent No. 6,176,977. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent contain the subject matter that is narrower in scope than that in the instant claims, rendering them obvious over each other.

In regards to instant claims 25-26 and 41-43, claims 12 and 17-18 of the patent teach an apparatus, comprising a housing, an ion generator disposed within the housing; the ion generator having a first electrode array including at least one electrode having a pointed tip in a downstream direction and a second electrode array that includes at least one electrically conductive member defining at least one circular opening in a downstream direction from the pointed tip of the first electrode, the second electrode having a skirt region that surrounds a periphery of the circular opening.

In regards to instant claims 28, 33, claims 12 and 19 teach all the limitations as recited in the instant claims.

Therefore, the claims of the patent contain the subject matter that is narrower in scope than that in the instant claims, rendering them obvious over each other.

8. Claims 25-26, 28, 33, 38, and 41-43 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, 7-8, 12, 14, and 17-22

of U.S. Patent No. 6,312,507. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent contain the subject matter that is narrower in scope than that in the instant claims, rendering them obvious over each other.

In regards to instant claims 25-26, 28, and 41-42, claims 1, 7-8, 12, 17-19, and 21-22 of the patent teach an apparatus, comprising a housing; an ion generator disposed within the housing; the ion generator having a plurality of pin-ring electrode configurations, each configuration including a pin electrode that is directed toward a ring electrode; and a duty cycle control.

In regards to instant claims 33, 38, and 43, claims 3, 14, and 20 teach all of the limitations as recited in the instant claims.

Therefore, the claims of the patent contain the subject matter that is narrower in scope than that in the instant claims, rendering them obvious over each other.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 25-33, 35-37, 39, 41-52, 54-56, and 58-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krause (US Pat. 5,578,112).

Krause teaches an apparatus, comprising a housing (enclosure 12 or duct 2) with an air inlet vent (intake port) and an air outlet vent (exhaust port); an ion generating unit (ionizer)

positioned inside the housing; the ion generating unit having a plurality of pin-ring electrode configurations (ionizing and collector electrodes) (see Fig. 1 col. 1, ln. 65 to col. 2, ln. 29; col. 3, ln. 23-29 and 51-64).

Krause further teaches a plurality of the pin electrodes (ionizing electrodes) (see Fig. 1; col. 3, ln. 42-46), but the reference does not teach a plurality of ring electrodes corresponding to pin electrodes.

Although Krause does not teach a plurality of ring electrodes corresponding to pin electrodes; it has been held that mere duplication of parts has no patentable significance. See *In re Harza* , 124 USPQ 378 (CCPA 1960).

In regards to claim 26, Krause teaches the pin electrodes to be pointed (see Fig. 1).

Furthermore, in regards to claims 26-27; it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the shape of the electrodes would have been an obvious design choice, depending upon operating conditions and user's preference and intended use; and therefore, would have little patentable weight. See *In re Dailey*, 149 USPQ 47 (CCPA 1966); *In re Kuhle* 188 USPQ (CCPA 1975).

In regards to claims 28-31, Krause teaches the use of user controls (control panel 38 and high voltage circuit 14), including a pulse control module (module 50) (see Figs. 1-2; col. 4, ln. 36-41 and 64-67; col. 5, ln. 1-51).

Moreover, with respect to the functions of the user controls, it has been held within the skill in the art, that apparatus claims must be structurally distinguishable from the prior art in terms of structure not function. See *In re Danley*, 120 USPQ 528, 531 (CCPA 1959); *Hewlett-Packard Co. V. Bausch & Lomb, Inc.*, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990).

In regards to claim 32, although Krause does not specifically teach the housing having elongated recesses, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the housing would inherently have recesses as air inlet and air outlet vents for the air to move through and be purified.

In regards to claim 33, Krause teaches the ion generating unit (ionizer 4) including a high voltage pulse generator (pulse control module 50) (see Figs. 1 & 3; col. 4, ln. 64-67; col. 6, ln. 56-67).

In regards to claim 35, Krause teaches a user control (control panel 38) located on top of the housing (see Fig. 1).

In regards to claim 36, Krause teaches the first pin electrodes being near the air inlet and the second ring electrode located near the air outlet (see Fig. 1).

In regards to claim 37, although Krause does not specifically teach the inlet and outlet vents being elongated along a length of the elongated housing; it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the shape of the inlet and outlet vents would have been an obvious design choice, depending upon operating conditions and user's preference; and therefore, would have little patentable weight. See *In re Dailey*, 149 USPQ 47 (CCPA 1966); *In re Kuhle* 188 USPQ (CCPA 1975).

In regards to claim 39, although Krause does not teach the housing having a cross section in the shape of a figure eight; it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the shape of the housing would have been an obvious design choice; since whether the housing is tubular of having the shape of a figure eight, the process of

air purification would have had the same effect. See *In re Dailey*, 149 USPQ 47 (CCPA 1966); *In re Kuhle* 188 USPQ (CCPA 1975).

In regards to claim 41, Krause teaches that the ring electrode having a skirt region surrounding an opening (see item 30, Fig. 1.

In regards to claim 42, although Krause does not teach the pin electrode pointing in a downstream direction; it has been held mere rearrangement of parts an obvious matter of design choice, since the electrodes as arranged by Krause would have the same effects as those in the presently claimed invention, meaning the electrodes are positioned so that the ring electrode would effectively attract the ionized particles in the air. Hence, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that how the electrodes are positioned would be an obvious matter of design choice, depending upon operating conditions, and user's preference and intended use. See *In re Kuhle*, 188 USPQ 7 (CCPA 1975); *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984).

In regards to claim 43, Krause teaches that when energized the ion generating unit causes air to flow in a downstream direction from the pin electrode toward the ring electrode (see Fig. 1). Moreover, it has been held within the skill in the art that limitation on the manner of operation of the device does not differentiate apparatus claim from the prior art, if the prior art apparatus teaches all of the structural limitations of the claim; and would have insignificant patentable weight in an apparatus claim. See *Ex parte Masham*, 2 USPQ 2d 1647 (Bd. Pat. App. & Inter. 1987).

In regards to claim 44, the arguments are as presented in claims 25, 37, and 42 above.

In regards to claims 45-52, the arguments are as presented in claims 26-33 above.

In regards to claims 54-56, the arguments are as presented in claims 35-37 above.

In regards to claims 58-59, the arguments are as presented in claims 41 and 43 above.

In regards to claim 61, the arguments are as presented in claims 25, 35, and 36 above.

11. Claims 34, 40, 53, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krause as applied to claims 25 and 44 above, and further in view of Thompson (US Pat. 5,315,838).

Krause is as set forth in claims 25 and 44 above and incorporated herein.

Krause differs from the presently claimed invention because the reference does not teach the use of horizontal louvers to cover the air inlet and the air outlet.

In regards to claims 34 and 53, Thompson teaches an air conditioner unit with horizontal louvers to cover the air inlet and the air outlet (see Figs. 1-2; col. 3, ln. 4-9). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have employed horizontal louvers, as taught by Thompson, in the air purifier of Krause to cover the air inlet and the air outlet; since louvers have been used in the art to control the airflow into and out of the air conditioner or air purifier.

In regards to claims 40 and 57, although Thompson does not teach the louvers being directed across a direction of elongation of the housing; it has been held mere rearrangement of parts an obvious matter of design choice, depending upon operating conditions and user's preference, since the louvers as arranged by Thompson would have the same effects as those in the presently claimed invention. See *In re Kuhle*, 188 USPQ 7 (CCPA 1975); *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984).

12. Claims 38 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krause as applied to claims 25 and 44 above, and further in view of Peltier (US Pat. 5,196,171).

Krause is as set forth in claims 25 and 44 above and incorporated herein.

Krause differs from the presently claimed invention because the reference does not teach the pin electrodes including a plurality of conductive fibers.

Peltier teaches the use of an electrode made of conductive fibers (ceramic fibers containing stainless steel wires) (see Fig. 2; col. 4, ln. 65 to col. 5, ln. 7). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used the pin electrode made of conductive fibers, as taught by Peltier, in the apparatus of Krause, because Peltier teaches that the use of conductive fibers would increase the total surface area of the electrode, hence increasing the air ion output (see col. 5, ln. 14-16).

Contact Information

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 703-306-5698. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703-308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

tt
August 26, 2002

NATHAN M. NUTTER
PRIMARY EXAMINER
GROUP [redacted] 1711